

REMARKS

This paper is presented in response to the non-final official action dated October 25, 2006, wherein: (a) claims 1, 2, 4, 6-9, and 11-13 were pending; (b) claims 6 and 9 were rejected 35 USC § 112, ¶ 2 as indefinite; (c) claims 1, 4, 6-9, 12, and 13 were rejected under 35 USC § 103(a) as obvious over Meador et al., *193-nm Multilayer Imaging Systems* (Proc. SPIE vol. 5039, June 12, 2003) (“Meador”) in view of Takano et al. U.S. Patent No. 6,506,535 (“Takano”), as evidenced by Wolf et al., *Silicon Processing for the VLSI Era*, 1986 (“Wolf”) and Barclay et al., *Bilayer Technology for ArF and F₂ Lithography: The Development of Resists to Minimize Silicon Outgassing*, (Proc. SPIE vol. 5039, June 12, 2003) (“Barclay”); and, (d) claims 2 and 11 were rejected under 35 USC § 103(a) as obvious over Meador in view of Takano and Shibata et al., *Material and Process Development of Tri-level Resist System in KrF and ArF Lithography* (Proc. SPIE vol. 4690, 2002) (“Shibata”).

Reconsideration and withdrawal of the rejections are respectfully requested in view of the foregoing amendments and following remarks.

I. Brief Summary of the Amendments to the Claims

Claim 1 has been amended to recite that the gas protection composition used to form the gas protection film comprises “a water-soluble polymer selected from the group consisting of copolymers of methyl methacrylate and acrylic acid, copolymers of methyl acrylate and acrylic acid, and mixtures thereof.” Claim 1 has also been amended to address matters of form.

Claim 2, 7, and 8 have been amended to address matters of form.

Claims 6, 9, and 11-13 have been canceled.

Claims 1, 2, 4, 7, and 8 are pending and at issue.

By these amendments, it is submitted that the indefiniteness rejection of claims 6 and 9 is moot.

No new matter has been introduced by these amendments.

II. The 35 USC § 103(a) Rejections Are Traversed

Claims 1, 4, 6-9, 12, and 13 were rejected as obvious over Meador in view of Takano. Claims 2 and 11 were rejected as obvious over Meador in view of Takano and Shibata. See p. 3-7 of the action.

A. Proper Basis for a § 103(a) Rejection

The proper basis for an obviousness rejection was previously set forth in Amendment “B.”

B. No Prima Facie Case of Obviousness Exists Based on the Applied Publications

The applied publications **do not** teach or suggest all of the limitations recited in pending claims 1, 2, 4, 7, and 8. Thus, no *prima facie* case of obviousness exists.

Meador is directed to a multilayer microlithography system, and was discussed in Amendment “B.”

Takano is generally directed to an anti-reflection coating composition. Takano discloses an anti-reflective coating composition that is formed on a photoresist layer, where the anti-reflective coating includes (a) polyacrylic acid, (b) polyvinyl pyrrolidone, (c) perfluoro alkylcarboxylic acid and (d) tetramethyl ammonium hydroxide.

Wolf and Barclay are cited as evidence for the function of a photoresist and the outgassing of silicon-containing polymers. *See* p. 3-4 of the action.

Shibata is directed to a tri-level resist lithography system. The action cites Shibata for the disclosure of a KrF resist. *See* p. 7 of the action.

Claim 1 recites a gas protection film formed from “a gas protection composition comprising a water-soluble polymer selected from the group consisting of copolymers of methyl methacrylate and acrylic acid, copolymers of methyl acrylate and acrylic acid, and mixtures thereof.” As acknowledged by the action, Meador does not disclose a gas protection film. *See* p. 5 of the action. The action asserts that Takano’s anti-reflective coating serves as a gas protection film based on its inclusion of polyvinyl pyrrolidone. *See* p. 6 of the action. Thus, the combination of Meador and Takano fails to disclose the gas protection film and water-soluble polymers recited in claim 1, and the additional publications of Wolf, Barclay, and Shibata do not remedy this deficiency.

Accordingly, no *prima facie* case of obviousness exists, and the applicants request reconsideration and withdrawal of the obviousness rejections.

IV. Conclusion

In view of the foregoing, entry of the amendments to claims 1, 2, 7, and 8, cancellation of claims 6, 9, and 11-13, reconsideration and withdrawal of the rejections, and allowance of all pending claims 1, 2, 4, 7, and 8 are respectfully requested.

Should the examiner wish to discuss the foregoing or any matter of form in an effort to advance this application towards allowance, he is urged to telephone the undersigned at the indicated number.

Respectfully submitted,

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By: _____

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